

**DEFENDANT TURTLE WAX, INC.'S  
EXHIBIT B**



Deposition of:  
**Robert F. Herrick , Sc.D., CIH, FAIHA**  
*November 6, 2019*

In the Matter of:  
**Benzene - Rhyne, Bruce v. U.S. Steel**

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1 Q. Okay. Does the report contain all of your  
2 opinions in this matter?

3 A. Yes, it does. Yeah.

4 Q. Did anyone else participate in the  
5 preparation of the report?

6 A. Well, aside from the -- the person, you  
7 know, the -- the staff I mentioned at EH&E, who  
8 contributed to, you know, helping me put together  
9 the work histories, but no one other than that.

10 Q. Okay. Obviously the report refers to some  
11 modeling you did; is that correct?

12 A. Right. Yes.

13 Q. Or modeling that was done.

14 Did you do the modeling yourself?

15 A. Yes, I did.

16 Q. So you sat in front of the computer and  
17 actually did the model?

18 A. I did, yes.

19 Q. Okay. And you picked all of the -- I  
20 mean, we're going to get into this later -- but  
21 obviously you relied -- at least in part -- on the  
22 ART model?

23 A. That's correct.

24 Q. Okay. And the ART model contains --

25 MR. DuPONT: Objection to form.

1 Q. Okay. Okay.

2 Did you ever speak to anyone else in this  
3 case, other than perhaps coworkers at EH&E and Mr.  
4 DuPont?

5 Have you talked to anyone else?

6 A. No, I haven't.

7 Q. You -- you are not a medical doctor; is  
8 that right?

9 A. That's correct, yeah.

10 Q. You're not a toxicologist.

11 A. No, I'm not.

12 Q. You're not an epidemiologist.

13 A. I'm not.

14 Q. Your report does not contain an opinion on  
15 general medical causation.

16 A. It does not.

17 Q. Or specific medical causation.

18 A. Neither, no.

19 Q. And your report does not contain an  
20 opinion on warnings.

21 A. No, it doesn't.

22 MR. FISHKIN: I'll mark -- I have a -- I'm  
23 going to mark as Herrick 3 what purports to be your  
24 CV with a date of August of 2019.

25 (Exhibit Herrick 3, Robert F. Herrick

1 manufactured by Magnaflux Corporation?

2 MR. DuPONT: Form.

3 A. No, I don't -- oh, well, sure -- sure I  
4 do, 'cause here it is. It's -- I mean, it does  
5 mention Magnaflux in the Approved Chemical List.

6 So yeah, I do see that.

7 Q. Do you understand that Magnaflux  
8 Corporation is not a named defendant in the case?

9 A. Oh, no, I guess they're not.

10 Q. Did Mr. Rhyme have benzene exposures from  
11 daily living every day of his life before he was  
12 diagnosed with AML -- separate and apart from any  
13 exposures that he had to benzene from the products  
14 that you talk about in Tables 3 and 4?

15 MR. DuPONT: Form.

16 A. Okay. So you're referring to, say,  
17 nonoccupational exposures?

18 Q. Well, I think your report talks about  
19 nonoccupational exposure to certain products.

20 So I'm talking about did he have -- or I'm  
21 asking about whether he had benzene exposures from  
22 daily living, separate and apart from any benzene  
23 to which he was exposed from the products on Tables  
24 3 and 4?

25 MR. DuPONT: Form.

1           A.    Yeah, I mean, he probably had the same  
2           kind of exposures that, you know, most of us have.  
3           There's benzene levels in ambient air -- varied,  
4           you know, quite a lot, depending on where you live.

5                   He -- I don't remember if this came up,  
6           but he very likely pumped his own gas at the gas  
7           station and filled his car. So, you know, he had  
8           that source.

9                   He wasn't a smoker, so, you know, I think  
10          that's -- that's, you know, sort of, off the table.  
11          That's always, you know, something to consider.

12                  And I don't know that he, you know, I  
13          don't remember from the record if he lived with  
14          anyone who smoked. I just don't remember that  
15          part.

16          Q.    Did you in your report estimate his daily  
17          exposure to benzene, separate and apart from what  
18          you believe he was exposed to from the products in  
19          this case?

20          A.    No, I didn't.

21          Q.    Did you in your report calculate his  
22          cumulative exposure to benzene from daily living in  
23          the nearly 60 years before he was diagnosed with  
24          AML, separate and apart from benzene to which he  
25          was exposed to the products that you list in Tables

1 off the record or not, but my name's Virginia  
2 Wooten, and I represent Turtle Wax in this matter.  
3 I just have a few questions for you, and they're  
4 mainly going to be a product called Marvel Mystery  
5 Oil.

6 A. Oh, sure.

7 Q. And just to start, all your opinions  
8 regarding Rhyne's exposure to any benzene and  
9 Marvel Mystery Oil are contained in your report;  
10 correct?

11 A. That's right, yeah.

12 Q. And if you look at Table 3 on page 39 in  
13 your report, and you go down to where Marvel  
14 Mystery Oil is listed, and under the "Daily  
15 Exposure Midpoint," it says, "Not determined"; is  
16 that correct?

17 A. That's correct, yeah.

18 Q. And why is that?

19 A. Well, it was really my view of the way he  
20 was using that particular product, and my  
21 recollection was -- you know, and he -- he talked  
22 about this in his deposition -- that he was adding  
23 that liquid to these cylinders, I think I would  
24 call them; they were reservoirs that were on the  
25 vibrators that he was doing this maintenance work

1 on. And so, as he described what he did, it seemed  
2 to me that the opportunity for there to be  
3 substantial vapor exposure was really very minor.

4 Q. And, then, in Table 4 on page 43, if you  
5 look down at where Marvel Mystery Oil is listed,  
6 once again, under the "Cumulative Exposure  
7 Midpoint" it says, "Not determined." Is that a  
8 similar reason as to why that's not determined in  
9 that table as well?

10 A. Right, because I -- what I, you know,  
11 tried to do was -- was talk about -- in -- in the  
12 narrative that precedes this -- what was in the  
13 record about the composition of the Marvel Mystery  
14 Oil; and I, you know, recognized, you know, the --  
15 the ingredients, you know, the petroleum-based  
16 ingredients as being things that, over time, you  
17 know, could have had benzene as one of the  
18 ingredients -- one of the components. But what was  
19 really, you know, sort of, leading me to this "Not  
20 determined" classification was the way he was using  
21 it.

22 Q. So were you unable to, I guess, get a  
23 cumulative exposure based upon the way he was using  
24 it?

25 A. That was really what was -- what was



1 driving it, yeah.

2 Q. Okay. So there's no -- you did not  
3 calculate any cumulative exposure for Marvel  
4 Mystery Oil in this matter?

5 A. I didn't.

6 Q. Okay. And if you turn to page 44 in your  
7 "Conclusions" page, you would agree that there's no  
8 conclusion regarding Marvel Mystery Oil listed on  
9 that page.

10 A. Let me just double-check. (Witness  
11 reviews document.) No, there is not.

12 Q. Okay. And my guess is there's not going  
13 to be a model report attached in your appendix  
14 specifically for Marvel Mystery Oil in your report.

15 A. No, I didn't do any calculations or  
16 develop any modeling for that.

17 Q. And if we go back to -- I believe it's  
18 page 29 of your report, you discuss Marvel Mystery  
19 Oil on page 29, and if you look at the second full  
20 paragraph on page 29, it, kind of, discusses Mr.  
21 Rhyne's use of Marvel Mystery Oil.

22 Is your understanding of how Mr. Rhyne  
23 used the Marvel Mystery Oil from his deposition?

24 A. It is, yeah.

25 Q. Is there any other source you are using to

1 determine how he would use Marvel Mystery Oil?

2 A. No, just his description of the -- the way  
3 the work process was conducted.

4 Q. Okay. If you look at that last full  
5 paragraph on page 29, the first sentence, and I'll  
6 just read it: "As of 1985 Marvel Mystery Oil is  
7 reported to contain mineral spirits, 30 percent,  
8 and naphthenic base oil distillate, 67 percent."

9 A. Right.

10 Q. And where are you getting that from?

11 A. I'd have to go back into my files. I  
12 think I -- it's either from a safety data sheet or  
13 from some, you know, possibly correspondence that I  
14 have in the record about the composition of this  
15 product.

16 Q. Sure. And I'll -- I'll represent to you  
17 we received a Dropbox earlier today, and it had two  
18 Material Safety Data Sheets for Marvel Mystery Oil  
19 contained in it.

20 Do you know if you used two separate data  
21 sheets for Marvel Mystery Oil?

22 A. I did, and -- and it is, kind of, coming  
23 back to me now. As I recall, the -- the first one,  
24 the one from 1985 really was pretty sparse. You  
25 know, there wasn't really very much information

1 contained in that, other than what I've presented  
2 here.

3 And, then, the one from 1995 and, then,  
4 these others that I mentioned for, you know, later  
5 dates had a lot more detail.

6 Q. Do you know if you pulled those Material  
7 Safety Data Sheets, or if you were provided those  
8 sheets?

9 A. I think they were provided.

10 Q. And, then, same thing: Paragraph 3 on  
11 page 29, in that second sentence, is that coming  
12 from a Material Safety Data Sheet as well?

13 A. It is, yeah.

14 Q. Same thing with the -- the next sentence.  
15 Would that be from your review of safety data  
16 sheets?

17 A. Right, those are.

18 Q. Okay. And, then, there's the next  
19 sentence: "In the time period when Mr. Rhyne used  
20 this product at Catawba --" from 1986 to 1998 "--  
21 the benzene contents of the petroleum derived  
22 solvents reportedly ranged from 100 to 2,000 --"  
23 parts per million.

24 And where is that coming from?

25 A. Oh, what I was reflecting there -- and I

1 think, you know, probably the -- the underlying  
2 source there is that review article that Williams  
3 prepared --

4 Q. Uh-huh.

5 A. -- because in her supplementary tables she  
6 has a variety of products over time.

7 Q. Uh-huh.

8 A. And so among these mineral spirits or  
9 petroleum distillate products, that was the range  
10 that she reported going over this, you know,  
11 20-year time period.

12 Q. Okay. And, then, it looks like the last  
13 sentence says when you determined that the range of  
14 Rhyne's benzene exposures from Marvel Mystery Oil  
15 "-- to be .01 to 1 parts per million with a  
16 midrange value of .5 parts per million for the  
17 duration of each use," and how did you come up with  
18 that calculation?

19 A. Yeah. That actually would have been what  
20 I -- you know, again, that's -- that's based on the  
21 range of exposures that Williams had reported for  
22 the materials that ranged from 100 to 2,000 parts  
23 per million.

24 So, again, that -- and that's from the  
25 supplementary table No. 1 in her report.

1 Q. Okay.

2 A. But, you know, since I later decided that  
3 I really just didn't feel comfortable trying to  
4 determine the exposure level, I really should have  
5 taken that last sentence out.

6 Q. So sitting here today you believe you  
7 should have taken the last sentence out of  
8 paragraph 3 on page 29 out of the report?

9 A. Well, reflecting on, you know, as I really  
10 tried to think about, you know, both the potential  
11 content of benzene in the material, but also what I  
12 concluded or inferred about the way he was using  
13 it, I really didn't feel that there was a  
14 substantial opportunity for him to have exposure.

15 So that that's why I gave it this category  
16 as "Not determined."

17 Q. As far as any benzene that would be  
18 contained in Marvel Mystery Oil, would that be  
19 coming from the mineral spirits only?

20 A. Well, in some --

21 MR. DuPONT: Objection. Form.

22 THE WITNESS: I'm sorry.

23 A. No, some of these, you know, ingredients  
24 that are listed, say, like, in -- in 1985, you  
25 know, we have the "mineral oil petroleum distillate

1 solvent dewax severe," I mean, they're, you know,  
2 "heavy naphthenic petroleum lubrication oil," you  
3 know, so there's a range of, I mean, ingredients  
4 there that could potentially contain benzene.

5 Q. And can you just go over which ingredients  
6 you believe --

7 A. Well, I think, you know, you clearly could  
8 have had from -- from the petroleum distillate  
9 solvent refined the heavy naphthenic petroleum lube  
10 oil, the Stoddard Solvent mineral spirits. I mean,  
11 I think those three would be candidates.

12 Q. And you did not perform any product  
13 testing on Marvel Mystery Oil; is that correct?

14 A. No, I haven't.

15 Q. And you haven't provided any opinion  
16 regarding dermal exposure to Marvel Mystery Oil.

17 MR. DuPONT: Objection. Form.

18 A. No.

19 MS. WOOTEN: Doctor Herrick, I believe  
20 that is all the questions I have for you right now.  
21 Thank you.

22 MR. DuPONT: It's been about an hour.  
23 Take a quick break.

24 (Recess was taken.)

25 EXAMINATION